

REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on March 9, 2005, and the references cited therewith.

Claims 1, 4, 5, 9, 10, 14, 23, 24, and 28 are amended, claims 8, 13, and 22 are canceled, and no claims are added; as a result, claims 1-7, 9-12, 14-21, and 23-30 are now pending in this application.

S102 Rejection of the Claims

Claims 5-27 were rejected under 35 USC § 102(a) as being anticipated by Deas et al. (U.S. Publication No. 2003/0043900). The Office Action alleges that Deas teaches a method of testing a driver. Applicants respectfully disagree. Deas describes an adaptive equalizer to compensate for distortion in a channel. (See the abstract of Deas). The cited portions of Deas describe deriving the transmission channel characteristic (page 5, paragraph 0064), and measuring multiple points (page 5, paragraph 0072) of a received signal as part of determining the response of the channel (page 5, paragraph 0074). Accordingly, the disclosure provided by Deas describes methods for characterization and equalization of an unknown channel.

The claimed invention in claim 5, in contrast, utilizes a known channel (the “reference channel”) to test a driver. Applicants respectfully submit that claim 5 as originally submitted defines over the Deas reference; however, claim 5 has been amended to provide clarification in the interest of moving prosecution forward.

Applicants respectfully submit that the Deas reference does not disclose, teach, or suggest the subject matter of claim 5, as amended, including for example, “driving a reference channel with the driver, wherein the reference channel is specified as a worst-case channel that displays a maximum allowable loss versus frequency characteristic”. Accordingly, applicants respectfully believe claim 5 is in condition for allowance.

Claims 6, 7, and 9-12 depend on claim 5, and are believed to be in condition for allowance at least by virtue of dependency. Further, as stated above, applicants respectfully

submit that Deas does not disclose a reference channel. Accordingly, applicants further submit that Deas does not disclose ways to specify a reference channel as claimed in claims 7, 9, and 10.

With regards to independent claim 14, the Office Action cites Figures 4-7 of the Deas reference to support a rejection under 35 USC § 102(a). Applicants respectfully submit that Figures 4-7 do not disclose, teach, or suggest the subject matter of claim 14 as originally presented. For example, Figures 4-7 of Deas do not disclose, teach, or suggest a “reference channel.” The above comments notwithstanding, applicants have amended independent claim 14 to provide clarification in the interest of moving prosecution forward.

Applicants respectfully submit that the Deas reference does not disclose, teach, or suggest the subject matter of claim 14, as amended, including for example, “coupling a device under test to a reference channel, wherein the reference channel is specified as a worst-case channel that displays a maximum allowable loss versus frequency characteristic”. Accordingly, applicants respectfully believe claim 14 is in condition for allowance.

Claims 15-21 and 23 depend on claim 14, and are believed to be in condition for allowance at least by virtue of dependency. Further, as stated above, applicants respectfully submit that Deas does not disclose a reference channel. Accordingly, applicants further submit that Deas does not disclose ways to specify a reference channel as claimed in claims 20, 21, and 23.

Independent claim 24 is an apparatus claim that corresponds to method claim 14. Applicants respectfully believe claim 24 is in condition for allowance for the reasons discussed above with reference to claim 14. Claims 25-27 depend on claim 24, and are believed to be in condition for allowance at least by virtue of dependency.

Claims 28-30 were rejected under 35 USC § 102(e) as being anticipated by Reise et al. (U.S. Patent No. 6,678,625). The Reise reference discloses a bus functional model with a configurable data structure (see the abstract of Reise). The Office Action alleges that Reise discloses “coupling a device under test to a reference channel” at column 7, lines 61-63. Applicants respectfully disagree. The cited portion of Reise describes coupling a bus functional model in a simulation test bench environment to a device under test. The bus functional model includes data structures (col. 7, lines 63-65).

Applicants respectfully submit that the Reise reference does not disclose, teach, or suggest a reference channel. The above comments notwithstanding, applicants have amended independent claim 28 to provide clarification in the interest of moving prosecution forward.

Applicants respectfully submit that the Reise reference does not disclose, teach, or suggest the subject matter of claim 28, as amended, including for example, "coupling a device under test to a reference channel, wherein the reference channel is specified as a worst-case channel that displays a maximum allowable loss versus frequency characteristic". Accordingly, applicants respectfully believe claim 28 is in condition for allowance. Claims 29 and 30 depend on claim 28, and are believed to be in condition for allowance at least by virtue of dependency.

§103 Rejection of the Claims

Claims 1-4 were rejected under 35 USC § 103(a) as being unpatentable over Deas (U.S. Publication No. 2003/0043900) in view of the ARRL Handbook for Radio Amateurs.

Applicants respectfully traverse this rejection on the grounds that a *prima facie* case of obviousness has not been established. Applicants respectfully submit that a proper *prima facie* case of obviousness has not been established for at least two reasons: 1) there is no motivation to combine the references, 2) even if combined, the combination of references does not disclose, teach, or suggest the subject matter of independent claim 1.

No Motivation to Combine

The Office action provides the following paragraph as a motivation to combine the references:

It would've been obvious to one skilled in the art at the time of the invention to modify the Deas reference to include the step of "replacing the reference load with the receiver and verifying the receiver output" in order to test the receiver without picking up external noise and signals. (Page 25-21, paragraph titled dummy antennas, lines 11-12).

Applicants respectfully submit that the cited portion of the ARRL handbook does not describe “replacing a reference load with a receiver” as described in the previous paragraph, but rather describes connecting a dummy load *to* a receiver.

The Combination does not Disclose the Claimed Invention

The Office Action alleges that the Deas reference teaches testing a receiver comprising driving a signal into a reference load at page 4, paragraph 57. Applicants respectfully disagree. As described above with respect to the rejections under 35 USC § 102, applicants respectfully submit that the Deas references describes an adaptive equalizer to compensate for distortion in a channel. In addition, applicants respectfully submit that the cited portion of Deas describes the selection of resistor and capacitor values for a filter used to compensate for distortion in a channel. Further, as described in the immediately preceding section, applicants respectfully submit that the ARRL handbook does not disclose, teach, or suggest “replacing the reference load with the receiver” as claimed in claim 1 as originally filed. Accordingly, the combination of references does not disclose, teach, or suggest the subject matter of claim 1 as originally filed.

The above comments notwithstanding, applicants have amended independent claim 1 to provide clarification in the interest of moving prosecution forward. Applicants respectfully submit that the Deas and ARRL references, taken alone or in combination, do not disclose, teach, or suggest the subject matter of claim 1, as amended, including for example, “driving a signal from a variable source into a reference load; adjusting the variable source to modify the signal to achieve a characteristic eye pattern; replacing the reference load with the receiver; and verifying the receiver output”. Accordingly, applicants respectfully believe claim 1 is in condition for allowance. Claims 2-4 depend on claim 1, and are believed to be in condition for allowance at least by virtue of dependency.

Reservation of Rights

Applicants do not admit that references cited under 35 USC §§ 102(a), 102(e), 103/102(a), or 103/102(e) are prior art, and reserve the right to swear behind them at a later date.

Arguments presented to distinguish such references should not be construed as admissions that the references are prior art.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (952-473-8800) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No 50-2359.

Respectfully submitted,

JEFF C MORRISS ET AL.

By their Representatives,

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Date 6-8-05

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 8 day of June, 2005

Chris Hammond
Name

Chris Hammond
Signature

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 10/674,593

Filing Date: September 29, 2003

Title: METHOD AND APPARATUS FOR CHANNEL-BASED TESTING

Assignee: Intel Corporation

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Dkt: 80107.042US1

IN THE DRAWINGS

Corrected drawings in compliance with 37 CFR 1.121(d) are supplied herewith.